

Attachment to PTOL-413A Ser. No. 10/733,889

Claim Rejections-35 U.S.C. 103

Claims 1-9 and 16-20 were rejected under 35 U.S.C. 103(a) as being unpatentable over Jennings et al. (US2972502) in view of Hunter, Jr. (US5494004). Applicants respectfully traverse the rejection.

Jennings et al. was asserted as teaching the claimed segmentation. Jennings et al., however, does not involve a detonative cleaning apparatus. Jennings et al. involves a pellet projector. The Office action identified one particular embodiment wherein the "pellets may be discharged from a soot blowing device which is also adapted to discharge a fluid cleaning agent such as air and/or steam. Col. 5, lines 61-64.

The Office action fails to articulate how the references are combined. The Office action merely combines words based upon an attempt to hindsight reconstruct the claimed invention. Exactly what elements are taken from Hunter, Jr.? Exactly what elements are deleted from Jennings et al. in making the combination? Exactly what does the final proposed apparatus look like? In the absence of answers to these issues, Applicants are not in a position to fully respond. However, the Office action at page 3 raises some red flags. For example, note the reference to "a tubular body 322" apparently asserted to identify the body of the at least three doubly flanged segments of present claim 3. Element 322 of Jennings et al. identifies piping between a blowing fluid supply pipe 325 (e.g., a steam source) and the tee 320 at the upstream end of the lance feed tube 310. There is no indication that such a feed tube would survive a modification to a detonative cleaning apparatus, let alone whatever particular modification the Office has in mind. It is thus critical that Applicants be informed of the nature of this modification. By way of further example, detonative modification would involve not merely removing piping from a steam source but adding conduit(s) from fuel and oxidizer sources. Where would these be added in the system? Where would the igniter be positioned? It is clear that the Office has not thought through a workable implementation. Furthermore, if the Office can think through a workable implementation, this may well involve elements precluded by the present claims.

There is no reasonable suggestion to modify Hunter, Jr. based upon segmentation of a hybrid pellet and air/steam system. A conclusory motivation was asserted as having been obvious

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"to modify Jennings's apparatus by including the limitations taught by Hunter and recited above in order to provide a cleaning apparatus, which can effective [sic] clean boilers with pulsed pressure waves as taught by Hunter..." Office action, paragraph spanning pages 4 and 5. Presumably Jennings et al. already had a cleaning apparatus. If the goal of the combination is to clean with pulsed pressure waves as taught by Hunter, Jr., presumably one would simply have adopted Hunter, Jr.

This is different from the prior asserted conclusory motivation "in order to provide a rugged, reliable and compact apparatus that can be located outside the walls..." March 16, 2007 Office action, page 6, first full paragraph. To make such a rejection, it must first be substantiated that one would have found Hunter, Jr. to be insufficiently rugged, reliable, compact, and locatable outside a wall. The rejection must then indicate a reason why one of ordinary skill would have chosen to adopt specific teachings of Jennings et al. in a specific way so as to cure the insufficiency of Hunter, Jr. and also yield the claimed invention. There is no basis for either of these.

Jennings et al. substantially predates Hunter, Jr. Additionally, flanged conduits have been used in industry for even longer. Clearly, had the use of flanged conduit sections been obvious, Hunter, Jr. would have done so. This is distinguished, for example, from the situation wherein a recent improvement is, in turn, applied to a variety of existing devices.

Furthermore, the proposed modifications of Hunter, Jr. would defeat basic functions of Hunter, Jr. The teachings of Hunter, Jr. are directed to hinging of two portions to allow insertion in a folded state, followed by unfolding to permit use and further to aim. These attributes would be utterly defeated by the proposed modification which would permanently fix Hunter, Jr.'s orientation in an intermediate condition of deployment.